

SPECIES

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Author Affiliation:

¹The Rapinat Herbarium and Centre for Molecular Systematics, St Joseph's College (Autonomous), Tiruchirappalli, Tamil Nadu–620002, India

²Department of Botany, St Joseph's College (Autonomous), Tiruchirappalli, Tamil Nadu–620002, India

Corresponding Author

The Rapinat Herbarium and Centre for Molecular Systematics, St Joseph's College (Autonomous), Tiruchirappalli, Tamil Nadu–620002, India
Email: raja.plantbiology@gmail.com

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Dipcadi krishnadevarayae B.R.P. Rao (Asparagaceae): A new distributional record of an endemic geophyte to Tamil Nadu, India

Raja P^{1*}, John Peter Arulanandam L^{1,2}, Soosairaj S², Johny Kumar Tagore²

ABSTRACT

Dipcadi krishnadevarayae B.R.P. Rao an endemic geophyte is reported for the first time from Pudukkottai district of Tamil Nadu. A detailed description, photo plates are provided for the easy identification.

Keywords: *Dipcadi krishnadevarayae*, endemic, new record, Tamil Nadu

1. INTRODUCTION

The *Dipcadi* is one of the largest genera in Asparagaceae, comprising 44 species and mainly distributed in Africa, Asia, and Europe (POWO, 2023). India is one of the centres of diversity of the genus having 13 species and two varieties (Deb and Dasgupta, 1978; Matthew, 1983; Ravichandran et al., 2020; Kulloli et al., 2020). Among these, ten species and two varieties are endemic to Peninsular India except Himalayan Species *D. reidii* Deb & S. Dasgupta. Currently, the genus is represented by two species in Tamil Nadu, namely *D. montanum* var. *maderasicum* (E. Barnes & C. E. C. Fisch.) Deb & S. Dasgupta and *D. coimbatorensis* V. Ravich., R. Kr. Singh & Murugan.

While working on the flora of the Pudukkottai district, the authors collected a *Dipcadi* species from the banks of the Vellar river of Pudukkottai district, Tamil Nadu on July 2022. After scrutiny of the literature and the Herbarium reference, it was identified and confirmed as *D. krishnadevarayae* B.R.P. Rao an endemic geophyte that has been so far reported only from Andhra Pradesh (Rao et al., 2016). Therefore, our collection from the Pudukkottai district of Tamil Nadu has confirmed the extended distribution. A detailed description and photo plates are provided here for easy identification.

2. TAXONOMIC TREATMENT

Dipcadi krishnadevarayae B.R.P. Rao in J. Threat. Taxa 8: 9563. 2016 (Figure 1).



Figure 1 *Dipcadi krishnadevarayae* A. Habit; B. Bulb with roots; C. Flower bud with bract; D & E. Flower top and side view; F. Capsule

Botanical Description

Perennial, scapigerous, bulbous herbs. Bulbs 2–4 × 2–3 cm, sub globose-ovoid, white, with many fibrous roots, tunicated, outer tunicate membranous; inner tunicate fleshy. Leaves 4 per bulb, sheathing at base, sheaths broader than the leaves, white, below the ground; lamina 25–60 × 0.4–0.8 cm, linear-oblong, sub coriaceous, green, acute at apex. Scape erect, slender, terete, 30–65 cm long; racemes 11–25 cm long with 7–12 flowered. Bracts 6 × 3 mm, longer than pedicel, membranous, acuminate. Flowers oblong in bud, 1.5 × 0.4 cm, greenish white; pedicels 4–5.5 mm long in flower, 8 mm in fruit.

Perianth in 2-whorls, 3+3, spreading, subequal; outer tepals 13 × 3 mm, longer than the inner ones, tube campanulate, 5–6 mm long; lobes 6–7 × 3 mm, obtuse-acute with reflexed apex, tubercled at apex; inner tepals 6–7 × 2 mm, obtuse-acute at apex, tubercled. Stamens 6, inserted on the throat of the tube; filaments flat, adherent to the perianth, broader at base, glabrous; anthers 2-celled, 3–3.2 × 1 mm, linear, dorsifixed, versatile. Ovary obovate, stipitate, 4 × 2.5 mm; style cylindric, grooved, 5 mm long, tubercled; stigma 3-lobed and each lobe further bilobed, tubercled. Capsule trigonous, 3-lobed, broader than the long, loculicidal, 1–1.3 × 0.8–1.0 cm. Seeds 7–9 per locule, sub discoid, ovoid-sub orbicular, 5–6 × 4–6 cm, black.

Flowering & Fruiting

July–August

Distribution

Endemic to Andhra Pradesh and Tamil Nadu in Peninsular India.

Habitat and Ecology

This species is found growing sandy soil under bush along with *Dodonaea viscoa* Jacq., *Phoenix pusilla* Gaertn., *Asparagus racemosus* Willd., *Dracaena roxburghiana* (Sult. & Sult. f.) Byng & Christenh., *Dipcadi montanum* var. *madrasicum* (E.Barnes & C.E.C. Fisch.) Deb & S.Dasgupta, *Blepharis integrifolia* (L.f.) EMey. & Drege ex Schinz var. *integrifolia*, *Senna auriculata* (L.) Roxb., *Heteropogon contortus* (L.) P.Beauv. ex Roem. & Sult., *Opuntia tuna* (L.) Mill., *Pavonia odorata* Willd., *Vachellia eburnean* (L.f.) P.J.H.Hurter & Mabb. and *Flueggea leucopyrus* Willd.

Specimens Examined

India, Vellar river bank, Pudukkottai district, Tamil Nadu, 22.07.2022, 103 m, P. Raja 4768.

Authors' contribution

All authors have contributed equally to the manuscript

Ethical Approval

Dipcadi krishnadevarayae B.R.P. Rao was reported from the Pudukkottai district of Tamil Nadu, India. The ethical guidelines for plant materials were followed in the study for sample collection and identification.

Conflicts of interests

The authors declare that there are no conflicts of interests.

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The study has not received any external funding.

Data and materials availability

All data associated with this study are present in the paper.

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